REMARKS

This response to the Office Action dated December 8, 2009 is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in a condition for allowance. Favorable reconsideration and allowance of the application are respectfully requested.

Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

Status of Claims

Claims 1-29 are pending in the application. Claims 1, 3, 22 and 25 have been amended. Claims 1 and 22 are independent claims, and amendments to those claims required amendments to dependent Claims 3 and 25, for example, to keep terminology and elements recited in the dependent claims parallel with the independent claims. The amendments to the claims add no new matter.

CLAIM REJECTIONS
35 U.S.C. § 103(a) Rejection

The Office Action of December 8, 2009 rejected Claims 1-29 under 35 U.S.C. § 103(a), as being unpatentable over Roque et al. (U.S. Publication 2002/0186687) in view of Suzuki (U.S. Publication 2002/0156925) and in view of Thompson et al. (U.S. Publication 2002/0018462). Applicants traverse this rejection.

Applicants have amended independent Claims 1 and 22. Each of Claims 2-21 and 23-29 depend upon one of independent Claims 1 or 22. Applicants respectfully submit that none of Roque, Suzuki or Thompson, alone, or taken together, discloses, teaches or suggests the limitations of independent Claims 1 and 22 as amended.

Claim 1, as amended, recites, *inter alia*:

> A method of controlling a local ...with a plurality of remote processes in a second processing entity... comprising ...
>
> ...

- verifying during a timer period that data messages previously sent using the fault-affected association have been received by the remote process;

- controlling the transmission of an acknowledgement of the failure message at the computer executing the local process so that data messages pending on the association are ensured as received, based on said verifying within the timer period; and

- initiating a traffic diversion to set up an alternate path …. with said initiating comprising testing of a data type value of the queued data messages

Claim 22 is a method claim having different limitations. However, for the purposes of this argument, Claim 22 makes correspondingly similar recitals. Between Claims 1 and 22 the recital of "initiating a traffic diversion..." is nearly identical and the recitals of "verifying during a timer period..." and "controlling..." are, in the context of a recited "switchback procedure" analogous. Applicants respectfully assert that, at least, neither Roque, Suzuki nor Thompson, alone, or taken together, disclose, teach or suggest the recitals in Claim 1 and 22 as amended.

(a) Roque

Roque pertains to a system where traffic and maintenance status of a signaling gate processor (SGP) is maintained in by an application server process (ASP). See, Par. [0065]. Emphasis in Roque is on how an ASP can obtain information through messaging so that it can manage traffic to and maintenance for an SPG For example, as Roque states:

In an ASP according to this invention (6), the process control means (61) are, according to a first embodiment of this invention, primarily in charge of managing the availability of events (state maintenance and/or traffic maintenance events) that, affecting a certain SGP, are received in such ASP from such SGP, and to take further actions based on them that will be later described. (Par. [0217])

Applicants respectfully assert that a large part of the Rogue disclosure pertains to the task of the ASP getting and handing SGP status information. See, for example, paragraphs [Pars 0152-0155 and 0201-0206] (SGP sending status information to

ASP) and, for example paragraphs [0258 -0260], [0283], [0298], [0340-0346] (ASP receiving maintenance and traffic information) and [0359] (exchange of management and maintenance messaging). All of those descriptions, in Roque, concerning an "ASP" gaining and storing "traffic and maintenance" information from an "SGP" do not pertain to "A method of controlling a local process" comprising, for example, recited elements of: "verifying during a timer period..", "controlling..." and "initiating a traffic diversion..." by "testing a data type value" as is recited in Claim 1, as amended, and correspondingly Claim 22, as amended. Accordingly, those passages do not disclose, teach or suggest the elements of Applicants Claim 1 or 22, as amended.

Roque also provides text "explaining behavior in an ASP when an unavailability message SGPIA or SGPDOWN is received from a connected SGP". (Par 0838) Paragraphs [0385]-[0388] describes the behavior as follows:

[0385] When an ASP (e.g.: ASP-X) receives an SGPIA or an SGPDOWN message from an ... it has to stop traffic (signaling traffic messages) towards such SGP and do [does] not expect receive any traffic (signaling traffic messages) coming from such SGP.

[0386] Then, ... ASP will have to fetch in the storing means (64) an alternative SGP (e.g.: SGP-C) that is currently serving, or can serve, the SG(s) that became unattended by the sending SGP (SGP-A).

[0387] If such alternative SGP is found and its status is "SGP_ACTIVE", then such SGP shall, from now, be used for signaling traffic messages related to such affected SG(s).

[0388] Otherwise, the sending of signaling traffic messages related to the affected SG(s) is temporarily stopped until the receiving ASP (ASP-X) starts and complete an activation procedure towards one (or more) alternative SGP(s) that can serve traffic related to the affected SG(s) (i.e.: SGP(s) that are configured to serve such SG(s) that became unattended).

However, these passages paragraphs [0385]-[0388] in Roque, like the other paragraphs above, do not disclose, teach or suggest the limitations of independent Claims 1 as amended, and correspondingly Claim 22, as amended.

For example, in paragraph [0385], Rogue states that the "ASP" has to "stop traffic (signaling traffic messages) towards such SGP…". FIG. 12 also shows process flow blocks with "Stop traffic to this SGP" and "Traffic temporarily stopped to this SG". Such statements of "stop[ing] traffic" alone do not disclose, teach, or suggest a process of, *inter alia*:

> - verifying during a timer period that data messages previously sent using the fault-affected association have been received by the remote process;
>
> and
>
> - controlling the transmission of an acknowledgement of the failure message at the computer executing the local process so that data messages pending on the association are ensured as received, based on said verifying within the timer period;

[Emphasis provided.] None of those elements are found where only "to stop traffic" is stated.

The next paragraph [0386], after [0385], describes that the "receiving ASP will have to fetch in the storing means (64) an alternative SGP …". In Roque, the ASP looks "in the storing means (64)" for another SGP with a status of "SGP_ACTIVE". Par [0387]. If there is no such "active" SGP, the ASP in Roque will attempt to "complete an activation procedure" and directly establish a connection with another SGP. See Par [0388].

Applicants respectfully assert that this process in Roque of looking for an alternate SPG through a database or directly connecting with an alternate SGP by "an activation procedure" does not disclose, teach or suggest the elements recited in Claim 1, as amended and, correspondingly, in Claim 22, as amended, of "verifying during a timer period" or "controlling acknowledgement" as described above, or, additionally of "testing of a data type value" in selecting an alternative path [Emphasis provided]. Roque doesn't test to determine the data types of the

messages that it is processing, and, further, Roque doesn't use the results of the test in finding "an alternative path". When Roque selects an alternative "SGP", it then establishes a direct ASP to SGP (alternate) connection, and, the selection of that alternate SGP is not based on "testing of a data type value" of the messages to send. [Emphasis provided.] Accordingly, Roque does not disclose, teach or suggest, for example, the recited approach.

Further paragraphs in Roque, [0389]-[0392], pertain to the ASP directly contacting an alternate SGP, which, again, is inapposite to the recitals of Claim 1, as amended and, correspondingly, Claim 22, as amended. The other paragraphs in Roque also do not disclose, teach or suggest the limitations found in Applicant's independent claims, as amended.

(b) Suzuki

Suzuki does not cure the defects of Roque. Suzuki describes a gateway system that includes a "common gateway management unit" See, e.g., Paragraphs [0011]-[0017]. Emphasis in Suzuki is on scalability. As Suzuki states:

> In the gateway system of the invention, the SG common management unit stores information about all of signaling gateways and call agents in the network, and the information is shared. Thereby, it is easy to apply a gateway function according to a change of network structure such as addition or removal of the signaling gateway or the call agent. Par [0023]

Another emphasis in Suzuki is flexibility or ease in adding units to the network. See, for example Pars. [0081] and [0091].

In Suzuki faults are mentioned: "...an alternate path can be used when a fault occurs in a signal path." [0051]. As a general approach, however, the technique in Suzuki relies upon its "SG common management unit":

> ...when, for example, a fault occurs in a network, it is impossible to perform an operation normally only by using the procedures above. Therefore, the SG common management unit 2 uses some kinds of tables to manage states of the signaling gateway processors 11-14 and a state of a network (for example, state of network unavailable). When the SG common management unit 2 receives information, the unit 2 creates a routing table by using the

> information and sends the contents of the routing table to the
> signaling gateway processors 11-14 to designate a destination.
> (Par. [0056])

Such a description of "creating a routing table" by a "SG common management unit" and "send[ing] the contents of the routing table" to the signaling gateway processors", does not describe the steps of, for example "verifying during a timer period that data messages previously sent … have been received" and "controlling the transmission of an acknowledgement of the failure message …so that data messages pending on the association are ensured as received …" as is recited in Claim 1, as amended and, correspondingly, in Claim 22, as amended. At least these elements are lacking in Roque and they are also lacking in Suzuki.

The description of Suzuki further does not describe, teach or suggest, "initiating a traffic diversion to set up an alternate path" by "testing of a data type value" [Emphasis provided]. As describe above, this element, likewise, was not found in Roque.

The more specific examples provided in Suzuki additionally demonstrate that this reference does not teach the limitations in Claim 1, as amended and, correspondingly Claim 22, as amended. Suzuki discusses: output faults, on both the IP network and SS7 sides (starting at paragraphs [0060] and [0068]), input faults on both the SS7 and IP network sides (starting at paragraph [0070] and [0073]) and, a fault with a signaling gateway process within the signaling gateway (starting at paragraph [0074]). These example discussions in Suzuki, like the general description above, each do not disclose, teach or suggest, for example, the recital of "testing of a data type value of the queued data messages" [Emphasis provided] or any of the recitals discussed above.

In Paragraph [0060], for example, Suzuki discusses the situation where the "IP side signal distribution paths 111 and 112 (that is, output side paths) are unavailable due to a fault". When this occurs, Suzuki's approach is to use "SLS [Signal Link Selection] information" (i.e. routing information from the "routing label", see par [0047]) to re-route. As Suzuki states:

>Specifically, the SG common management unit 2 transforms four
>bits of the SLS information into numeric character (step S16 in FIG.
>5). Therefore, a numeric character range of 1 to 15 can be
>obtained. Then, the SG common management unit 2, for example,
>cyclically assigns the numeric character to all links which are
>available at present (step S17 in FIG. 5). Also, the assignment is
>not always performed cyclically. The assignment can be adjusted
>so that similar number of numeric character are assigned to each
>link (destination of assignment). [0061] [see also FIG. 5, step S16)]

This description of using "SLS information" does not teach, for example, "verifying during a timer period that data messages previously sent...have been receive" and "controlling the transmission of an acknowledgement of the failure message ..." as is recited in Claim 1, as amended, and correspondingly in Claim 22, as amended. Additionally, it also does not disclose, teach or suggest, "testing of a data type value of the queued data messages" during initiation of a "traffic diversion" [Emphasis provided]. Suzuki's technique for finding an alternate route is to perform a calculation based on routing information and that is not what is recited in Claim 1, as amended and correspondingly, in Claim 22, as amended.

The other examples are similar. In Paragraph [0068], where "a fault occurs on the SS7 side signal distribution paths 101 and 102 (that is, output side paths)", Suzuki uses the same technique of creating "a routing table by using the SLS information" (Par [0068]). For "input path" faults on the SS7 side, Suzuki states, "signals are transferred via the SS7 side signal distribution paths 103 and 104 by a load distribution function." [0070]. See also, same process for input path faults on the IP network side at Par [0073]. Finally, when "a fault occurs on the signaling gate way processors" (a SGP fault), Suzuki states "In this case, similar to the above case, the SLS and the routing table are used...".

Each of these descriptions of using SLS information to re-route, or by performing "load distribution" to re-route does not disclose, teach or suggest, "verifying during a timer period that data messages previously sent...have been received" and "controlling the transmission of an acknowledgement of the failure message ..." as is recited in Claim 1, as amended, and, correspondingly, in Claim 22, as amended. Likewise, these passages also do not disclose, teach or suggest,

"testing of a data type value" while initiating "traffic diversion". to determine a data type for at least one the plurality of messages..., and selecting according to the test a second local process" [Emphasis provided]. Accordingly, Suzuki, like Roque, doesn't teach all of the elements of Claims 1 and 22, as amended, and Suzuki cannot cure the defects of Roque.

(c) Thompson

Thompson also cannot cure the defects of Roque. Thompson describes a "wireless telecommunications system for routing data packets and voice calls between a network and a subscriber terminal of the wireless telecommunications system..." (Par. [0008]). A "packet controller" in Thompson works with a "queue manger" and both elements operate on messages received from a "subscriber controller". Id. The subscriber terminal monitors which communications channels are available for packet data and sends "channels messages" concerning that status. See, e.g., par. [0011] The "packet controller" and "queue manager" operate on the "channels messages" messages. As Thompson states,

> Preferably, the packet controller maintains a record for the subscriber terminal identifying the packet group communication channels being monitored by the subscriber terminal, each time the channels message is sent by the subscriber controller, the packet controller being arranged to update that record, and the queue manager being arranged to reference the record when determining in to which queue to place a data packet destined for the subscriber terminal. (Par. [0018])

Taking away one of the communication channels in Thompson causes problems on the packet controller side, because a channels message that takes away a channel itself, "will not facilitate any corrective action for data packets already in a queue for a communication channel." (Par. [0019]). Assuming, *arguendo*, that such a situation is analogous to a fault situation, for example, between a signaling gateway process and an application server process, Thompson discusses a number of possible alternatives, which Applicant can address as regarding Claim 1, as amended and, correspondingly, Claim 22, as amended.

In the first alternative, when a channels message takes away a channel, Thompson proposes to drop all messages that have been already queued for that channel. As Thompson states:

> If the protocol being used by the subscriber terminal for handling data packets on receipt is robust enough, one approach may be to take no such corrective action, in which case any data packets already in the queue ...will not be received by the subscriber terminal, and instead the retransmission of those data packets will need to be requested. (Par. [0019])

Such a solution of "dropping" the queued messages in the "robust" case, does not disclose, teach or suggest "verifying during a timer period that data messages previously sent...have been received" and "controlling the transmission of an acknowledgement of the failure message ..." as are recited in Claim 1, as amended, and, correspondingly, in Claim 22, as amended. Likewise, this solution in Thompson also, does not describe, teach or suggest, "testing of a data type value" during the initiation of a "traffic diversion". [Emphasis provided].

In Paragraph [0019], Thompson describes another possible approach:

> An alternative approach, which would require the subscriber's terminal's actions to be dependent upon receiving an acknowledgement message from the packet controller is to delay issuance of the acknowledgement message from the packet controller until the contents of the queue for the relevant communications channel (at the time the channels message was received by the packet controller) have been transmitted.

This statement of "delay" until the contents have been "transmitted", does not disclose, teach or suggest, at least the elements from Claim 1, as amended and Claim 22, as amended, of, *inter alia*:

> - verifying during a timer period that data messages previously sent using the fault-affected association have been received by the remote process;

> - controlling the transmission of an acknowledgement of the failure message at the computer executing the local process so that data messages pending on the association are ensured as received, based on said verifying within the timer period;

[Emphasis provided.] Thompson's focus is on "transmission", not, for example, on "verification, during a timer period" as is recited in Claims 1 and 22, as amended. Moreover, this passage in Thompson, does not teach "initiating a traffic diversion to set up an alternate path" by "testing of a data type value of the queued data messages" Elements, again, that are not disclosed in either Roque or Suzuki.

In addition to the two alternatives discussed above, Thompson provides a third, "preferred" alternative. As Thompson states:

> ... in preferred embodiments, if the channels message from the subscriber controller specifies a reduced number of communication channels, the packet controller causes the queue manager to review the contents of the queues and to redistribute into an appropriate queue any data packets for the subscriber terminal placed in queues for communications channels no longer being monitored by the subscriber terminal. By this approach, the queue manager is able to retrieve data packets from any particular queue and place them onto another queue, thereby ensuring that the subscriber terminal will continue to receive any data packets destined for it. (Par. [0020])

Applicant respectfully asserts that this third approach, the "preferred" approach in Thompson, teaches away from any type of delay technique. It teaches away from the "delay" until contents have been "transmitted" stated in paragraph [0019] of Thompson. It also teaches away, for example, from the recitals of "verifying during a timer period ... data messages" and controlling the transmission of an acknowledgement ... based on said verifying within the timer period", from Claim 1, as amended, and Claim 22, as amended.

This third approach of "redistributing" (i.e. not "delay") is used also in Thompson's detailed example at paragraphs [0094]-[0099], which likewise teaches away from any recital of, e.g., "verifying during a timer period ... data messages" and controlling the transmission of an acknowledgement ... based on said verifying within the timer period". In addition, Thompson describes the use of "timers" for other aspects, see, e.g., par [0085], but no timer is described as being used for any "delay" and Thompson does not describe any "verifying" let alone "verifying" involving a "timer". Thus, Thompson, like Roque and Suzuki, does not describe,

teach or suggest all the elements of independent Claims 1 and 22, as amended. Thompson also does not cure the defects of Roque or Suzuki.

(d) Roque in view of Suzuki and Thompson

In addition, as discussed, none of Roque, Suzuki, or Thompson, alone, or taken together, disclose, teach or suggest the all the limitations of Claim 1, as amended, and, correspondingly, of Claim 22, as amended.

For at least the above reasons, Applicants respectfully assert that Claims 1 and 22 are allowable. Each of Claims 2-21 and 23-29 depends from one of Claims 1 or 22 and also includes the limitations of the claim from which it depends. As Claims 1 and 22 are allowable, it is submitted that each of the dependent Claims 2-21 and 23-29 are likewise allowable.

Accordingly, Applicants respectfully assert that the rejection of Claims 1-29 under 35 U.S.C. § 103(a), as being unpatentable over Roque in view of Suzuki and in view of Thompson be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, and for at least the reasons discussed above, Applicants respectfully submit that the pending Claims 1-29 are allowable. Their favorable consideration and allowance is respectfully requested.

The Examiner is invited to telephone the undersigned to discuss any still outstanding matters with respect to the present application.

Respectfully submitted,

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